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ROLAND SHARP

↳ Typo (October) 1993

Mr. John Kuhns
Remedial Project Manager
U.S. EPA - Region 5
77 West Jackson Blvd.
Chicago, IL. 60604



Dear Mr. Kuhns:

Subject: Albion-Sheridan Township Landfill Superfund Site, Calhoun County,
Michigan

This letter will serve as a response to Mr. Rauland Sharp's letter (the letter) of September 3, 1993.

The Michigan Department of Natural Resources (MDNR) acknowledges that several points of disagreement have developed since the presumptive remedy investigation was initiated. The MDNR has maintained from the beginning, and still maintains, that the Environmental Protection Agency (EPA) has ignored its own guidance for conducting expedited investigations at municipal landfills where the presumptive remedy approach is being applied. The guidance gives clear direction for dealing with concentrated source areas or "hot spots". A choice was made at EPA to not actively investigate the potential for drums, but only deal with them if hot spots happened to be discovered. When, at the MDNR's urging, the EPA finally decided to do a magnetometer survey of the site, they chose, against MDNR's technical advice, to perform the survey in a manner where only a small portion of the landfill would be characterized. To be effective, the survey should have been done in an appropriate grid over the entire landfill and extended off the landfill. Without a thorough geophysical investigation of the fill area, potential hot spots will not be identified and could continue to be a source of contamination for the Marshall Sandstone bedrock formation, which is a strategic regional water supply.

Since that time, buried drums have been found in a rabbit burrow on site, and a review of the magnetometer survey that was run has shown that the contractor's instrument was probably not functioning correctly at the time. These facts have not been acknowledged by EPA and EPA has taken no subsequent action to reconcile the situation. EPA should at least require the consultant to explain why the survey did not work and potentially request reimbursement for the work that tax payers paid for.

When the Draft Phase I Summary Report (PISR) was received by the MDNR on June 14, 1993, the MDNR staff were given until a proposed technical meeting on June 30, 1993 to digest, analyze, interpret and make decisions based on the considerable volume of information and data that the report contained. Due to a training conflict, our geologist was unable to devote the needed time during

this period to be able to study this report and be able to speak knowledgeably about it's contents. At the conclusion of the meeting, the EPA suggested that the Summary report be accepted as the Remedial Investigation (RI) Report. Additionally, the EPA and the consultant led MDNR to believe that groundwater was going to be treated. Air sparging was discussed as a possible option. Thus, any technical gaps that might be found in the report during our in-depth review following the meeting, would probably be addressed before such a system would have been designed. The MDNR was thus assured by the EPA that they intended to take appropriate measures to properly characterize the aquifer. However, we now find that EPA has reversed it's position and does not intend to treat groundwater.

MDNR cannot accept this significant change in direction because it will not be protective of public health and the environment. The RI data clearly indicates that landfill leachate is entering the regional aquifer system. During our in depth review of the report following the meeting, as expressed in our comments in a letter dated July 14, 1993, followed by comments generated by our geological staff, we discovered some significant problems that exist in the aquifer as described by the report. This discovery that the report **mischaracterized the hydrogeology of the site**, caused us to concluded that the Summary Report should not be accepted as the RI report. Once again, our conclusions were documented in our comment letter.

When it is known that an RI mischaracterizes the hydrogeology of a site, does not define contaminant transport mechanisms, and relies upon a technically unsound investigation (magnetometer survey), it can not be the basis of decision making. Yet EPA states, "Groundwater remedial action does not appear to be warranted based on characteristics of the site." How has this conclusion been drawn?

Mr. Sharps letter states that the MDNR has until October 31, 1993 to provide to EPA, any information gathered during a magnetometer survey, which we intend to initiate during the first week of October, and any subsequent test pitting and landfill characterization, in order for the information to be considered during development of the Feasibility Study. To complete this work, the time frame proposed by EPA is prohibitively short. We have no intention at this time of performing any further test pitting or landfill characterization, as that clearly would be the EPA's responsibility and is provided for in the EPA's work plan.

It will not be possible and is not reasonable to expect a report of the magnetometer survey by October 31, 1993. A report will be submitted to the EPA on or before December 15, 1993.

We have requested that our geophysical staff supply us with a work plan. When we receive it, we will send you a copy. I have also told Liz Bartz that we will send her a copy when it is ready. If EPA wishes to cooperate with the MDNR, we are ready to move forward on that basis. Based on our review of the Draft Summary Report, the MDNR has reached an entirely different conclusion regarding the possible need for groundwater remediation. Two contaminants of concern, Vinyl Chloride and Arsenic, are documented to be in the groundwater

October 6, 1993

in the bedrock at levels above Type B health based criteria. Vinyl Chloride is at levels approximately 100 times the Type B criteria, and EPA and their consultants have provided no explanation for its occurrence at depth and at the end of the plume. It is unlikely that the highest levels of this contaminant have been found.

Arsenic, although probably occurring naturally in the aquifer in a non-soluble form under neutral pH conditions, is also found in a soluble form in the bedrock groundwater at concentrations significantly exceeding Type B criteria. If, in fact, the landfill leachate discharging to the aquifer is altering the water chemistry, then some action must be taken to correct that situation. The initial conceptual model of the landfill hydrology presented by WW Engineering, assumed that any contaminants discharging from the landfill would probably wind up being discharged to the South Branch of the Kalamazoo River. Based on the data presented in the report, we now know that these contaminants mentioned above are not discharging to the river. However, the data did not document where the contaminants are moving to nor what their ultimate discharge point will be. Since this bedrock aquifer is an extremely important regional aquifer, the MDNR cannot agree with the premature conclusion that the aquifer does not warrant remediation. We therefore categorically disagree with the statement in the letter. Any decision as to whether or not to remediate the aquifers should be delayed and should be based on the results of additional needed aquifer and contaminant characterization.

The additional work Mr. Sharp proposed under item #4 of his letter is wholly inadequate in the opinion of the MDNR. No reasoning was provided in his letter to explain EPA's position nor to respond to MDNR's recommendations in our August 10, 1993 letter to Mr. Sharp.

As stated in previous correspondence, we are proceeding with preparations to conduct the magnetometer survey on the landfill. We will keep you apprised of our progress.

If you have any questions, please call me.

Sincerely,



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Superfund Section
Environmental Response Division
517-373-6808

cc: Mr. William Bradford, MDNR
Ms. Claudia Kerbawy, MDNR
Mr. James Heinzman, MDNR
Mr. Robert Delaney, MDNR
Albion-Sheridan file (H-1)